

# I-Panda RUNNER new generation voltage 12V/24V/36V/48V [MPPT solar controller](#)



[Runner](#) runs, 2019, my off-grid system

A new generation of intelligent digital MPPT solar controller

- 1, high-end design, color screen, touch button
- 2, four-stage charging to extend battery life
- 3, tracking efficiency up to 99.8%
- 4, perfect protection function
- 5, expandable APP, host computer, and unlimited parallel connection
- 6, monitor the entire system status, diagnose system matching, etc.

## Characteristics

- \* **High-efficient MPPT algorithm, MPPT efficiency  $\geq 99.5\%$ .**
- \* **Support Seal/Gel/Flooded battery and customized batteries.**
- \* **Four types of load mode selection: ON/OFF, PV voltage control, Dual Time control, PV+Time control.**

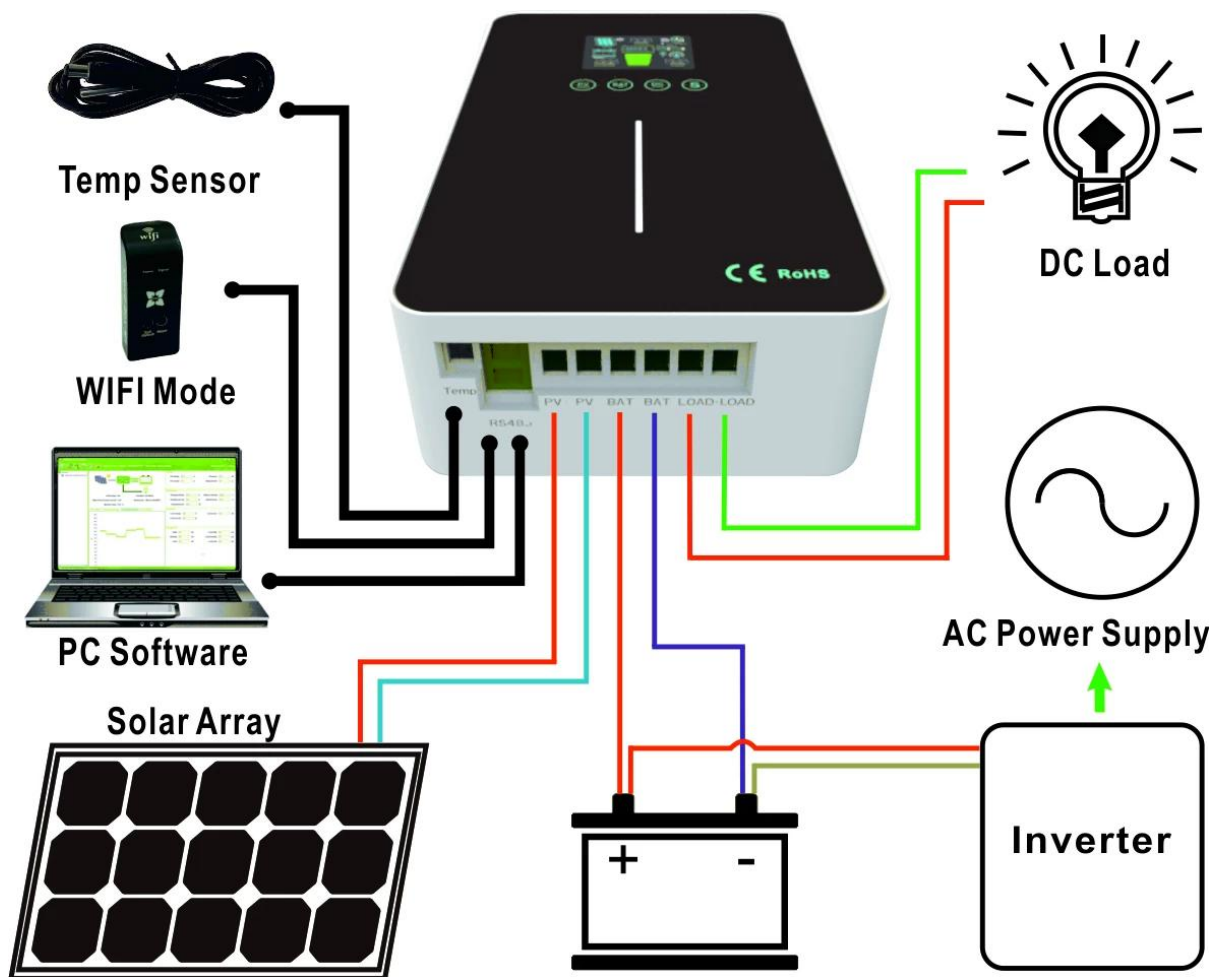
- \* **Current-limited charging function.**
- \* **High definition LCD display.**
- \* **Intelligent interaction experience.**
- \* **Dual RS485 communication ports, support for parallel communication.**
- \* **Support PC and APP (Android & iOS) monitoring.**
- \* **CE, RoHS, FCC certifications approved.**

## parameter

RUNNER Series			RUNNER -50A	RUNNER -60A
Product Category	Controller properties		MPPT (Maximum power point tracking)	
	MPPT efficiency		≥99.5%	
	Standby power		0.5W~1.2W	
	System voltage		12V/24V/36V/48V auto work	
	Heat-Dissipating method		Fan-cooling	
Input Characteristics	Max.PV input voltage(Voc)		DC150V	
	Start charge voltage point		Battery voltage + 3V	
	Low input voltage protection point		Battery voltage + 2V	
	PV rated power	12V system	650W	780W
		24V system	1300W	1560W
		36V system	1950W	2340W
		48V system	2600W	3120W
Charge Characteristics	Battery types (Default Gel battery)		Gel battery, Sealed lead-acid battery, Flooded battery, User-defined	
	Charge rated current		50A	60A
	Charge method		3 stages: CC (Constant current) - CV (Constant voltage) - CF (Floating charge)	
LOAD Characteristics	Load voltage		Same as battery voltage	
	Load rated current		30A	
	Load control mode		On, Off , PV voltage control, Dual-time control, PV + Time control	
	Low voltage protection		The default protection point is 10.5V, and it is restored to 11V (can be set)	
	Setup method		PC software / Mobile APP / controller display	

Display & Communication	Display	High-definition LCD segment code backlight display	Other Parameters	Protections	Input over / low voltage, output over / low voltage, reverse connection, over temperature, short circuit, battery shedding etc.
	Dry contact access voltage	5V ~ 12V			
	Communication	Dual RJ45 port / RS485 / support PC software monitoring / support WiFi module for APP cloud monitoring / support centralized parallel monitoring			
Operating ambient temperature		-20°C~+50°C	Other Parameters	Protections	Input over / low voltage, output over / low voltage, reverse connection, over temperature, short circuit, battery shedding etc.
Storage temperature		-40°C~+75°C			
IP(Ingress protection)		IP21			
Max. Battery wire (mm2/AWG)		30mm2			
Max. Load wire (mm2/AWG)		30mm2			
Recommended breaker		≥100A			
Net weight (KG)/Gross weight (KG)		2.15 / 3.05			
Product size (mm)/Packing size (mm)		305×185×72 / 420×275×150			

## System connection diagram



## Remarks:

1. The above is the standard parameters of the company. If there are any changes, please check our official website;

2. Our company can customize non-conventional MPPT controllers for customers and provide OEM and ODM services;
3. [[Click to download the specification](#)]